

To: Clarke, William[clarke.william@epa.gov]
From: Beeler, Cindy
Sent: Mon 8/15/2016 3:23:17 PM
Subject: FW: U&O FIP - GHGRP-W Activity Data on Pneumatic Controllers and Pneumatic Pumps

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From: Beeler, Cindy
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Subject: U&O FIP - GHGRP-W Activity Data on Pneumatic Controllers and Pneumatic Pumps

U&O FIP Team –

Thought you might all be interested in the new activity level data now available via the EPA GreenHouse Gas Reporting Program – subpart W. This will provide checks for us against the minor source registration data we used in our analysis for the FIP and to eventually compare against the emission inventory data when it comes in.

The GHGRP-W requires onshore production reporting by Basin. The Uinta Basin =

Carbon, Daggett, Duchesne, Uintah and Wasatch counties. An operator only reports if their Basin-wide onshore production emissions are > 25,000 MT CO₂e.

- The Uinta Basin had 15 operators report.
- Those 15 operators account for 91% of the UB wells, 86% of the UB oil production and 94% of the UB gas production.
- Duchesne + Uintah counties account for 91% of the UB wells, 99.8% of the UB oil production and 85% of the UB gas production.

I've taken data we've mined from the minor source registrations for speciation of the "raw" gas used in the pneumatic controllers and pumps to convert the metric tons of CO₂e to methane to VOC tons.

Pneumatic Controllers Summary for Uinta Basin 2014:

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UINTA BASIN SUMMARY

RY2014 Data by Operator

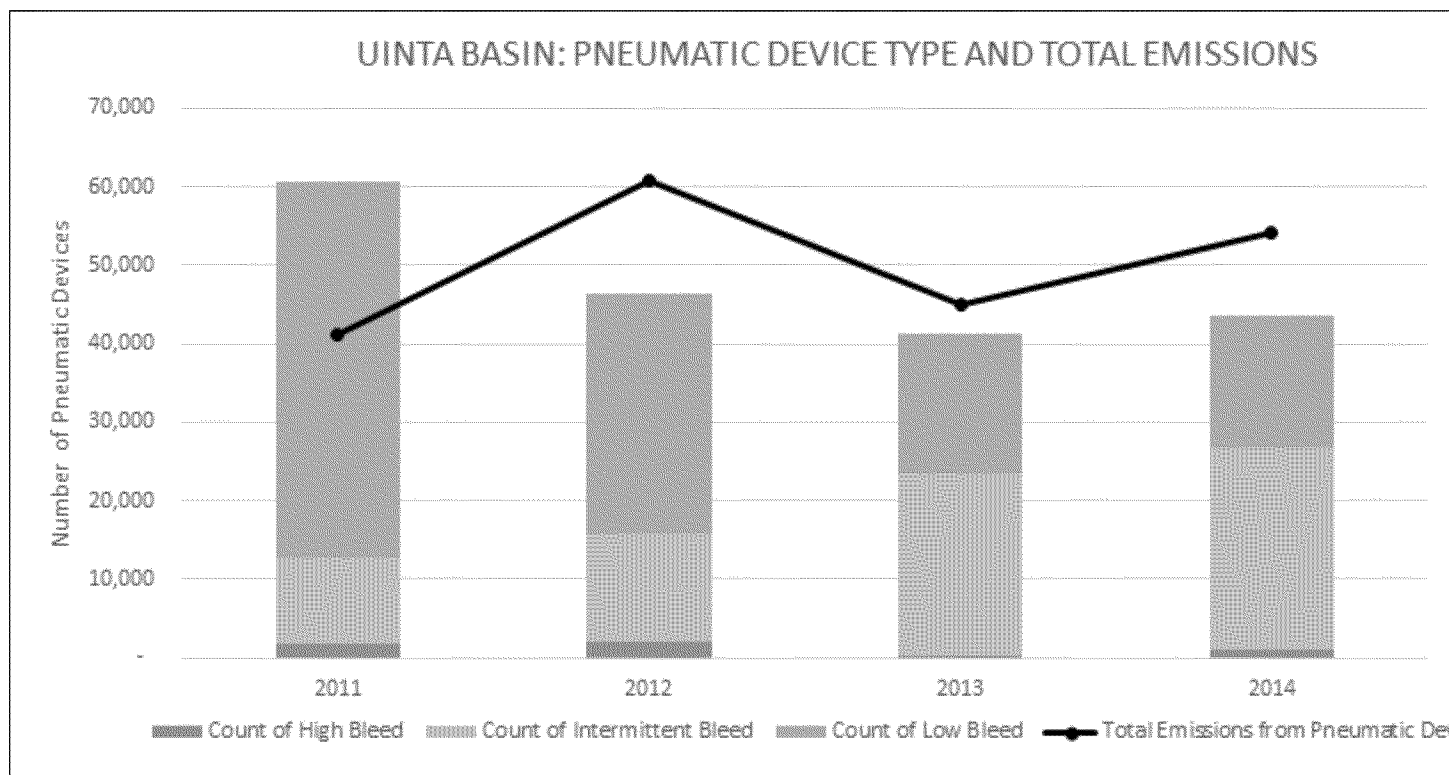
Uinta Basin = Carbon, Daggett, Duchesne, Uintah and Wasatch counties

RY2014 Pneumatic Devices Type and Emissions by Operator

	Count of Wellheads	# Devices/Well	# High Bleed Devices	# Intermittent Bleed Devices	# Low Bleed Devices	High Bleed (Tons VOC)	Intermittent (Tons VOC)
Newfield Exploration Co	2,669	2.9	-	-	7,784	-	-
EOG RESOURCES, INC	1,304	5.5	-	7,232	-	-	2,864
ANADARKO PETROLEUM CORP	3,048	2.2	-	-	6,750	-	-
QEP RESOURCES INC	847	5.6	247	3,098	1,420	233	1,029
EP Energy E&P Company, LP	545	6.1	-	3,348	1	-	1,997
BILL BARRETT CORP	276	11.7	-	3,233	-	-	3,033
ConocoPhillips Company	483	5.9	-	2,691	148	-	238
EnerVest Operating, LLC	330	6.9	804	1,023	457	805	371
EXXONMOBIL CORP	609	3.7	12	2,196	22	12	781
Linn Energy, LLC	997	1.7	4	1,606	121	7	1,560
Crescent Point Energy U.S. Corporatio	294	2.3	-	674	-	-	452
QUESTAR CORP	82	7.0	84	486	-	13	35
Gasco Energy, Inc.	145	1.7	-	-	248	-	-
BERRY PETROLEUM CO	-	-	-	-	-	-	-
Ultra Petroleum Energy Corporation	124	-	-	-	-	-	-
Totals	11,753	3.7	1,151	25,587	16,951	1,069	12,360

Note trend below of increasing number of intermittent devices (avg 0.48 TPY VOC/device) and decreasing number of low-bleed continuous bleed (avg 0.03 TPY VOC/device):

NSPS OOOO regulates continuous bleed devices, requiring low-bleed. It is silent on intermittent – *Do you reckon we should seek comment on the technical necessity of intermittent controllers versus using low-bleed?*



Pneumatic Pumps Summary for Uinta Basin 2014:

RY2014 Pneumatic Pump Counts and Emissions by Operator					
	Count of Pneumatic Pumps	Total Emissions (mtCO2e)	Average Emissions by Pneumatic Pump	Count of Wellheads	# Pumps/Well
ANADARKO PETROLEUM CORP	6,260	265,717	42.4	3,048	2.1
BERRY PETROLEUM CO		-		-	
BILL BARRETT CORP	3	137	45.6	276	0.0
ConocoPhillips Company		-		483	-
Crescent Point Energy U.S. Corporation	227	7,763	34.2	294	0.8
EnerVest Operating, LLC	1,008	52,090	51.7	330	3.1
EOG RESOURCES, INC	2,859	90,683	31.7	1,304	2.2
EP Energy E&P Company, LP	40	1,284	32.1	545	0.1
EXXONMOBIL CORP	904	43,711	48.4	609	1.5
Gasco Energy, Inc.		-		145	-
Linn Energy, LLC	1	8	7.8	997	0.0
Newfield Exploration Co	22	984	44.7	2,669	0.0
QEP RESOURCES INC	1,226	56,261	45.9	847	1.4
QUESTAR CORP	72	1,123	15.6	82	0.9
Ultra Petroleum Energy Corporation		-		124	-
Totals	12,622	519,761	41.2	11,753	1.1

Thanks to Travis Landauer for help on production data and Alexis Gilbert on the mined speciation data.

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